REMARKS

The following remarks are directed to the ground of rejection set forth in the Office Action of December 18, 2009.

35 U.S.C. 112, second paragraph as to (C_{3-7} cycloalkyl)methyl

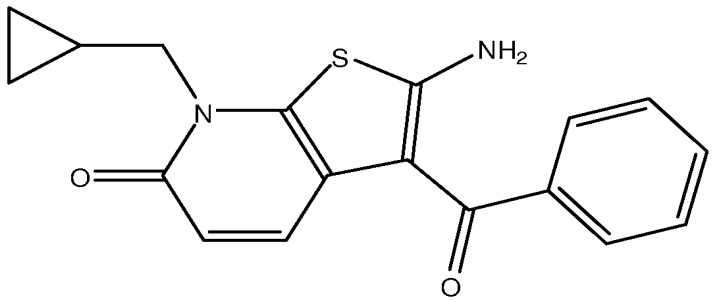
The Action repeats and makes final this ground of rejection from the prior Office Action, stating "the expression (C_{3-7} cycloalkyl)methyl is indefinite because it is not clear whether methyl is a substituent on the cycloalkyl ring. The term methyl is a terminal group and not a linking group." This rejection is respectfully traversed.

In reference to the amendment filed September 8, 2009, the current Action states, "Applicants [state] that the term methyl is understood to be a terminal group." This statement regarding the prior response is not correct. In the prior Amendment, the applicants stated "Applicants *respectfully disagree* that the term 'methyl' as used in the claims herein would always be understood to be a terminal group and not a linking group." (Amendment at page 20, emphasis added)

In fact, it is clear from the evidence already of record in this application that those skilled in the art would understand that the term "methyl" in "(C_{3-7} cycloalkyl)methyl" is a linking group. That evidence is in the form of the ChemDraw structures presented in the September 8, 2009 amendment. Specifically, applicants referred to Examples 39, 40, 86, 115-118, 147, 173, 174 and 220-223 of the specification, each of which includes a cyclopropylmethyl group. Applicants pointed out that when the names of the compounds of representative Examples 40, 86, 147, 173, and 220 are entered into the commonly used software program "ChemDraw Ultra," the resulting structures demonstrate that the methyl in "cyclopropylmethyl" as used in the present application is indeed a linking group. ChemDraw is a standard tool used by those skilled in the art to convert chemical names to structures. The fact that this tool interprets this chemical nomenclature to mean that the methyl group is a linking group, not a terminal group, is strong evidence of how one skilled in the art would understand this nomenclature, such that the claim language is not indefinite.

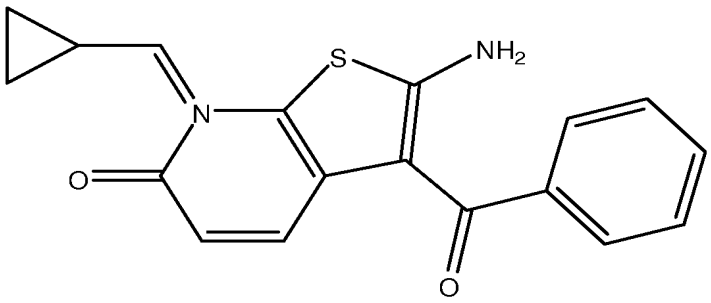
The Action suggests that if a linking group were intended then the nomenclature should read "methylene" rather than "methyl." But when such nomenclature is introduced into ChemDraw, valence errors are generated, as shown by the following examples.

Example 40 (as stated in the application)



2-Amino-3-benzoyl-7-(cyclopropylmethyl)thieno[2,3-b]pyridin-6(7H)-one

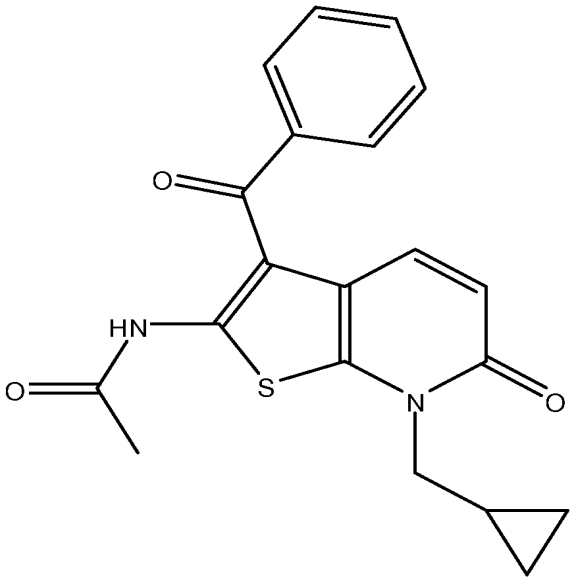
Example 40 (with "methylene" instead of "methyl" in nomenclature)



2-Amino-3-benzoyl-7-(cyclopropylmethylene)thieno[2,3,-b]pyridine-6(7H)-one

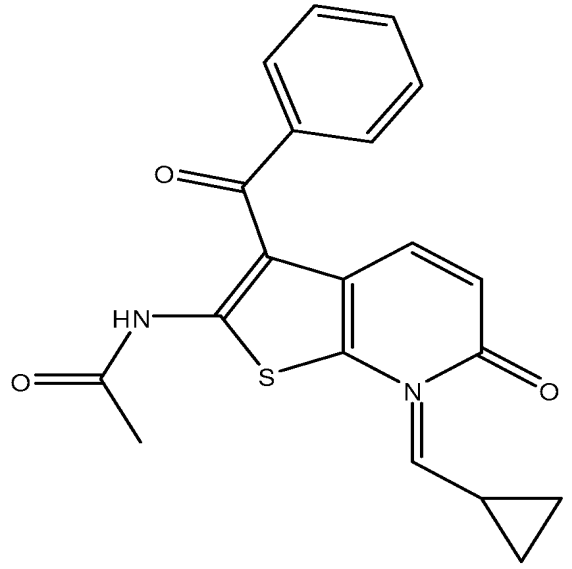
Caution: Valence appears to be exceeded

Example 86 (as stated in the application)



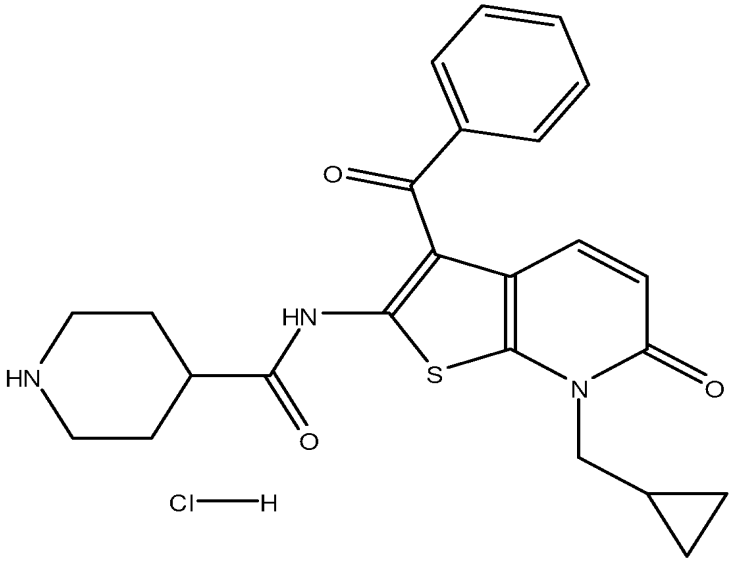
N-[3-Benzoyl-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridin-2- -yl]acetamide

Example 86 (with "methylene" instead of "methyl" in nomenclature)



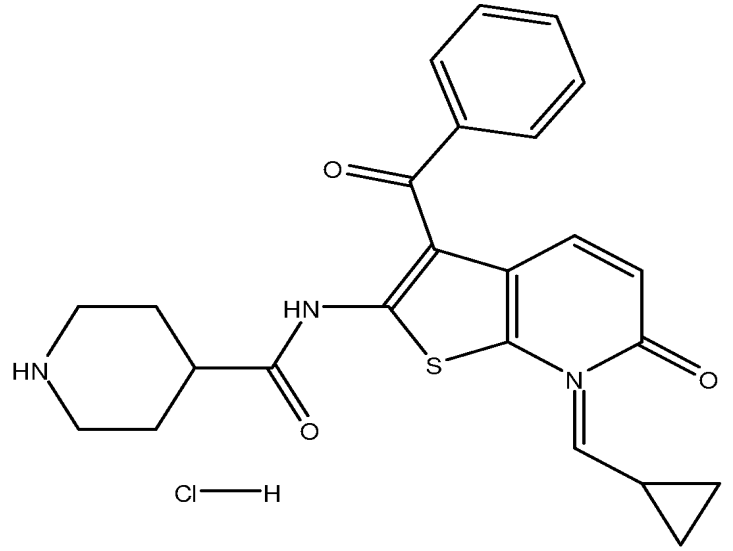
N-[3-Benzoyl-7-(cyclopropylmethylene)-6-oxo-6,7-dihydrothieno[2,3-b]pyridin-2-yl]acetamide
Caution: Valence appears to be exceeded

Example 147 (as stated in the application)



N-[3-Benzoyl-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridin-2- -yl]piperidine-4-carboxamide hydrochloride

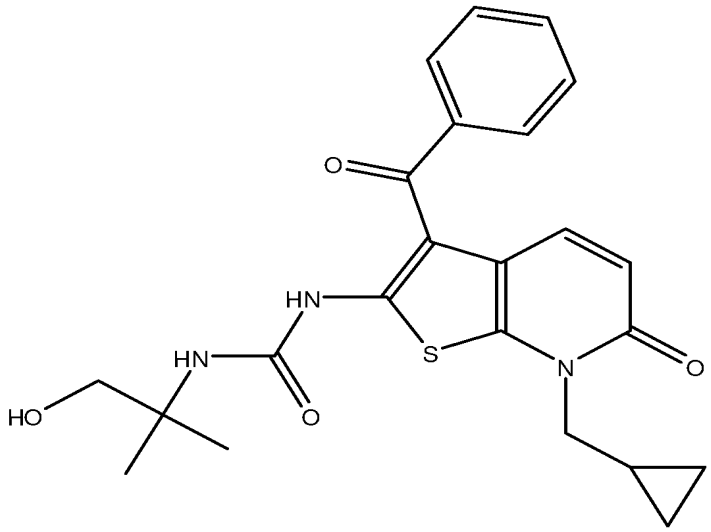
Example 147 (with "methylene" instead of "methyl" in nomenclature)



N-[3-Benzoyl-7-(cyclopropylmethylene)-6-oxo-6,7-dihydrothieno[2,3-b]pyridin-2-yl]piperidine-4-carboxamide hydrochloride

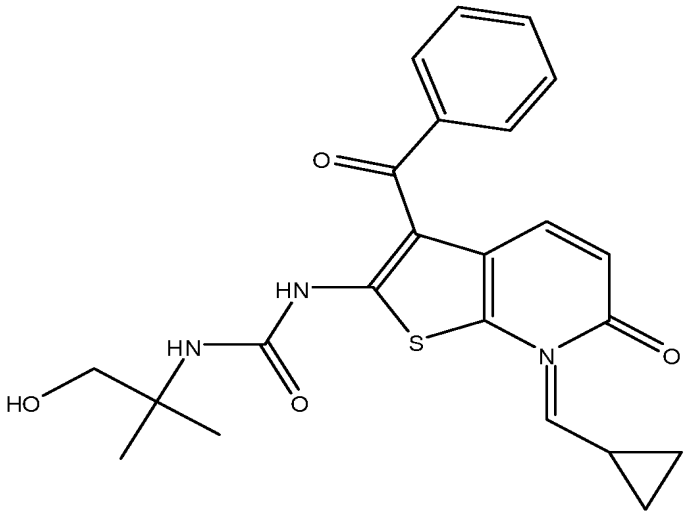
Caution: Valence appears to be exceeded

Example 173 (as stated in the application)



N-[3-Benzoyl-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridin-2-yl]-N'-(1,1-dimethyl-2-hydroxyethyl)urea

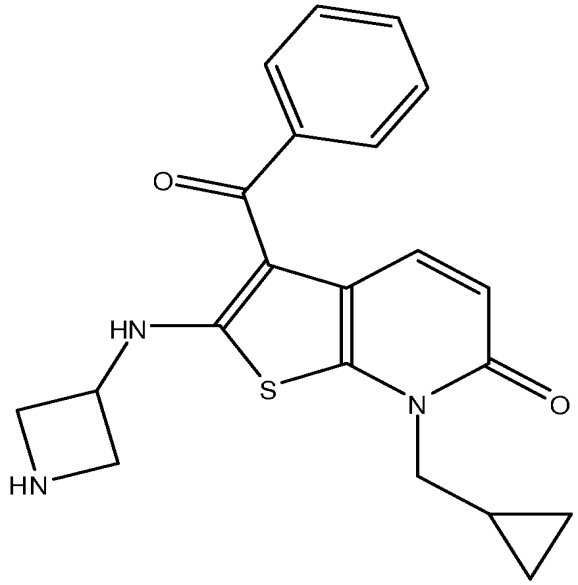
Example 173 (with "methylene" instead of "methyl" in nomenclature)



N-[3-Benzoyl-7-(cyclopropylmethylene)-6-oxo-6,7-dihydrothieno[2,3-b]pyridin-2-yl]-N'-(1,1-dimethyl-2-hydroxyethyl)urea

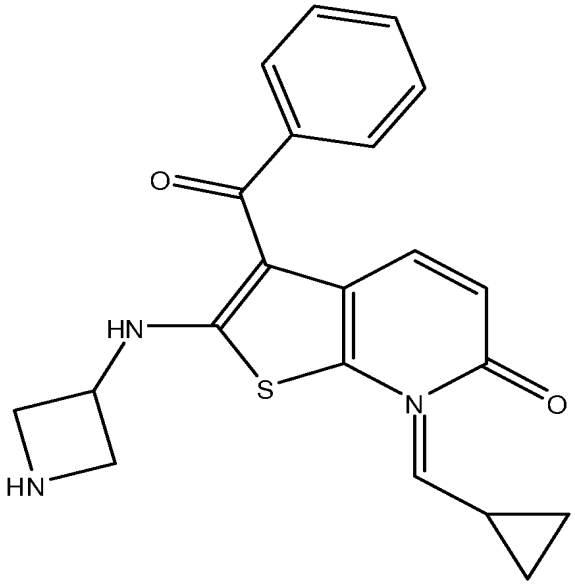
Caution: Valence appears to be exceeded

Example 220 (as stated in the application)



2-(Azetidin-3-ylamino)-3-benzoyl-7-(cyclopropylmethyl)thieno[2,3-b]pyridin- -6(7H)-one

Example 220 (with "methylene" instead of "methyl" in nomenclature)



2-(Azetidin-3-ylamino)-3-Benzoyl-7-(cyclopropylmethylene)thieno[2,3-b]pyridin-6(7H)-one
Caution: Valence appears to be exceeded

In each of the foregoing Examples, when the nomenclature is changed from "methyl" to "methylene," the resulting structure has four bonds to the nitrogen atom in the pyridine moiety, which is clearly incorrect. The error message "Caution: Valence appears to be exceeded" is automatically generated by the ChemDraw program.

It is clear from the foregoing illustrative, non-limiting examples how those skilled in the art understand the term "(C_{3-7} cycloalkyl)methyl" as used in the present application and the present claims. It further is clear that the use of "methylene" in the subject nomenclature, as suggested in the Office Action, would yield an incorrect result, one that would not be understood by those skilled in the art as corresponding to a meaningful chemical structure. Accordingly, it respectfully submitted that the use of the term "methyl" in the claim term "(C_{3-7} cycloalkyl)methyl" is adequate to particularly point out and distinctly claim the subject matter which applicant regards as the invention, so as to meet the requirements of claim definiteness under 35 U.S.C §112, second paragraph.

CONCLUSION

As all grounds of rejection have been overcome, it is respectfully requested that this application be passed to allowance. The Examiner is invited to contact the undersigned applicant's representative if it is believed that such communication would further the progress of the application.

Respectfully submitted,

Date: January 14, 2010

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